OBSERVATIONS ON COCCIDÆ (No. 10).

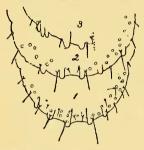
BY R. NEWSTEAD, F.E.S.,

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FIORINIA SULCII, n. sp.

Leucaspis pini, A. C. F. Morgan, Ent. Mo. Mag., xxv, p. 189, pl. iii, fig. 3 (1889); id., iii, n. s., p. 13 (1892). Newstead, Ent. Mo. Mag., v, n. s., p. 181, fig. (1894).

Q adult lying within the second moult; the latter, however, is completely hidden beneath the scale, which is entirely secreted at the 2nd stage. Q. Pygidium (figs.



1,2,3) generally with two pairs of very short, rounded lobes; sometimes there are a third or even a fourth pair, but these are inconstant and asymetrical; on either side beyond the median lobes are five or six (generally five) rather long spiny hairs, and between them two very short ones; within the margin are two irregular rows of pores or spinnerets; grouped spinnerets arranged in the form of an arch, but generally well separated: the anterior group consists of from five to ten, the anterior laterals from ten to

twelve, and the posterior laterals from nine to twelve.

Scale of the Q. In my description (l. c.) for "second moult yellow, &c.," read "larval moult yellow, &c.;" there is only the larval moult visible at the cephalic extremity. Larva rather short-ovate. Eyes black. Antennæ of five joints; 1st, 2nd, 3rd and 4th shortest, and in length nearly equal; 5th about as long as the rest together, is strongly ringed, and has three very long hairs. Legs with coxa and femur broad; tibiæ and tarsi much thinner, the latter very short, only about the same length as the claw; digitules to claw and tarsi simple. Mentum uniarticulate; unexpanded filaments reaching nearly to end of body. Pygidium with two large median, almost rectangular lobes; immediately within these are the two long anal setæ, and two very short ones; the latter arising from a central raised prominence. On either side of the lobes are a varied number of broad, and very finely serrated plates, and several small spines. The median lobes are very distinct, and their bases run almost through the pygidium. Segments each with two elongated pores, one ventral and one dorsal.

It is entirely through the persistent investigation of the species by Herr Karel Sule, and his discovery of both the adult $\mathfrak P$ of this species and Leucaspis pini, Hartig, that I have been able to clear up the identity of the two species. It is unfortunate, however, that I did not in the first instance describe the species as a new one; but like Mr. Morgan (l. c.) I was in doubt all along as to whether the peculiar fringe of blunt spines on the pygidium of $\mathfrak P$ Leucaspis pini, as described by Signoret and Löw, were really chitinous or only waxy secretions. Now the doubt no longer exists since Herr Sule has discovered the

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adult \mathcal{Q} of *Leucaspis pini*, Hartig, which, after treatment with potash, still retains the marginal fringe of blunt spines, which is so characteristic of the genus.

Mr. Morgan, in his description (l. c.), says, "the posterior margin of the female adult, unlike most species of Diaspina, is entire, possessing neither plates nor lobes." In this my new species does not agree, all have the very small plates, but they vary exceedingly in number, scarcely two being alike. It is, therefore, quite possible that some have none at all. The rest of his description agrees so well, that I feel almost certain of the identity, and Herr Sulc is of the same opinion.

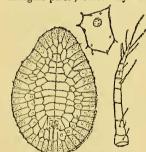
EXPLANATION OF THE FIGURES.

1 and 2 after Sule, types coll. Newstead.

3 ,, type coll. Sule; this is a very eurious form, having three odd lobes grouped together on one side.

LECANIUM PERFORATUM, n. sp.

Q adult (fig. 1, as seen with transmitted light), viviparous; dark piceous, margins paler; extremely flat, short-ovate, generally much widened posteriorly; on



either side of dorsum are well defined, radiating, transverse carinæ; the spaces between finely rugose. Dermis tesscllated with irregular rows of tesseræ; four on either side of dorsum; margins of each tessera with very minute pores, which, under a low power, look very like perforations (fig. 2); posterior half of submarginal row with large, clear, jagged spaces (fig. 2); about five on either side of dorsum; marginal row finely granulated outwardly. Antennæ (fig. 3) of eight joints; 2nd, 3rd, 4th and 8th longest, 1st, 5th, 6th and 7th shortest, and in length nearly

Fig. 1. Fig. 2. Fig. 3. Ist, 5th, 6th and 7th shortest, and in length nearly equal; 8th generally the longest. Legs rather short; intermediate and posterior pair wide apart; tarsi much shorter than the tibiæ; troehanter with a rather short hair; digitules to tarsi ordinary, those of the elaw much dilated at the extremity; claw short. Rostral filaments unexpanded, about the same length as the legs. Anal eleft very deep; lobes very small. Long, 3·50—4 mm.; wide, 2·50—3 mm.

\$\varphi\$, prior to gestation, dull reddish-brown; younger forms much lighter. Larva dull reddish; antennæ of six joints, of which the 3rd and 6th are longest; 3rd longest, 4th and 5th equal, about same length as 1st and 2nd. Rostral filaments unexpanded, extending beyond tibiæ of posterior legs. Legs rather short; digitules to tarsi and claws ordinary. Anal setæ rather shorter than is usual in the genus. Margins with a few stout hairs; and there are four very stout blunt spines, one over each of the tracheæ.

Hab.: Palm House, Kew; very numerous on the under-side of the leaves of Caryota Cumingii, a tropical palm. August, 1894.

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This very interesting and clearly distinct species was kindly forwarded to me by Mr. J. W. Douglas, to whom the specimens were sent by Mr. D. Morris, Assistant Director of the Royal Gardens. It is very closely allied to L. tessellatum, Sign. (Essai, p. 231, pl. xii, fig. 4); but the eight-jointed antenne, the central division and arrangement of the pores in the tessere, readily distinguish it from this or any other known species. The larve occurred both beneath and in the bodies of the adults, which is conclusive proof that the $\mathfrak P$ is viviparous. This, together with the other characters set forth, place the species in Signoret's 1st Series.

Chester: September 5th, 1894.

Coleoptera at Weymouth and Portland.—I spent the latter part of March last at Weymouth, and in consequence of the beautiful spring weather was able to do a good deal of collecting work. The hedges and trees were only showing very faint signs of the coming foliage, I therefore devoted most of my time to the coast and immediately adjoining land. Attention was mainly given to the Adephaga, and during ten days I was able to obtain about one-sixth of the total species found in Great Britain; of course a large proportion of these were very common, but a few were new to me, and are good species.

One day was spent at Poole: there I obtained Cicindela sylvatica, but though I kept a sharp look out for C. maritima all the time, I failed to obtain a specimen; perhaps it was too early, though campestris was in the utmost profusion all along the coast line, occurring on the clay cliffs as well as on the sandy portions of the coast.

On the Isle of Portland I obtained a few good insects (I was not lucky enough to come across Scybalicus oblongiusculus), the best were Licinus silphoides and Cymindis axillaris, both new to me.

On the Chesil Beach I obtained one specimen of Mesoreus Wetterhalii and Cillenus lateralis in great abundance, as also Harpalus neglectus and many common things.

At Weymouth itself my best captures were Acupalpus consputus (1), Trechus lapidosus (3), and Harpalus rotundicollis. Harpalus and Calathus were distinctly the commonest genera. Bembidium varium was in great abundance in the salt marshes near the town, along with Pogonus chalceus, and littoralis (sparsely).

In the other divisions perhaps the best take was a specimen of *Cardiophorus asellus* on Chesil Beach, where I found two last year about the same time.

Amongst those taken were Aphodius luridus (under a stone with Agriotes lineatus and sputator), Prasocuris junci (the only Phytophagous beetle met with), Anthicus humilis and antherinus, Meloë proscarabeus, Apion hæmatodes, miniatum and radiolus, Otiorhyncus tenebricosus, Philopedon geminatus, Barynotus obscurus, Hypera variabilis, Silpha lævigata, rugosa and atrata, Bryaxis Waterhousei and Helferi, Micraspis sedecimpunctata, Nitidula bipustulata and rufipes, Dermestes murinus, Aleochara lata, Quedius tristis, Cafius xantholoma, Xantholinus tricolor, Bledius spectabilis, and many other common Staphylinidæ, &c.--T. Hudson Beare, Park House, Richmond: August, 1894.